

Abstract

New genes containing a DNA sequence coding for hydroxynitrile lyase, which genes can be prepared via a primer combination based on the DNA sequence of the 5'-region of the *mdl* genes from *Prunus serotina* and from *Prunus amygdalus* and/or a primer 2 based on the 3'-region of the DNA sequences of one of the hydroxynitrile lyase isoenzymes from *Prunus serotina* or from *Prunus amygdalus*, subsequent amplification with a DNA polymerase using a DNA from organisms, containing genes coding for hydroxynitrile lyase, as templates and cloning, and also recombinant proteins which can be prepared in suitable host cells by heterologous expression of the DNA sequence of said *HNL* genes, and proteins and fusion proteins derived therefrom and use of said proteins for preparing (R)-or (S)-cyanohydrins.